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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/393,949	09/10/1999	KAVITA RAMANAN	1-1	3522

7590 03/29/2005

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EXAMINER

HYUN, SOON D

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/393,949	Applicant(s) RAMANAN ET AL.	
	Examiner Soon D Hyun	Art Unit 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 14-16, 27 and 28 is/are rejected.
- 7) ☒ Claim(s) 4-13 and 17-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on 01/19/2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 14-16, 27 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by McConnell et al (U.S. Patent No. 6,108,307).

Art Unit: 2663

Regarding claims 1 and 28, McConnell et al (McConnell) discloses a processor implemented method of scheduling data packets (frames, col. 4, lines 3-7 and FIG. 1) for transmission over a communication link in a network (Frame Relay network, col. 4, line 15), the method comprising the steps of:

computing delay measures (Depth severity, col. 7, lines 26-29 and Age severity, col. 7, lines 48-50) for a plurality of packets (Frame Relay messages) at the head of each Q1-Q4 in FIG. 3, col. 7, lines 10-13 and 48-49), and

selecting one of the plurality of packets for transmission (col. 7, lines 11-12) based on a comparison of weighted versions of the computed delay measures, i.e., the weighted versions are equivalent to congestion severity status (col. 7, lines 13-15) for the plurality of frames at the head of each Q1-Q4, because each frame at head of the queues Q1-Q4 has a congestion severity status and the congestion severity status is determined by the Age Severity and the Depth Severity components, such that the selected packet is the packet having the largest weighed delay (the highest congestion severity, col. 8, lines 35-36) associated therewith after comparing the congestion severity status for each frame (col. 7, lines 16-26).

Regarding claim 2, McConnell further discloses that the step of computing delay measures for a packet includes computing a difference between the current time and arrival time, i.e., the arrival time (col. 5, lines 64-65) and the current age (col. 7, lines 48-50) are measured by time stamps.

Regarding claim 3, refer to claim 1, McConnell further discloses that each packet associated with a corresponding one of four data flows (service classes, col. 6, lines 17-20) and located in a head position in a corresponding four queues

Regarding claim 15, refer to the discussion for the claim 2.

Regarding claims 14 and 27, McConnell discloses an apparatus (a frame service device 43 in FIG. 3) for use in scheduling data packets (frames, col. 4, lines 3-7 and FIG. 1), comprising:

a set of queues (a memory implementing a set of queues Q1-Q4 in FIG. 3), each queue (a subset) includes at least one packet; and

a link scheduler or a processor (a frame server 58 in FIG. 3 and col. 8, lines 44-46) has inputs (FIG.3) coupled to corresponding outputs of the queues and make scheduling for the packets with implementing of the steps as recited in claim 1.

Regarding claim 15, refer to claim 2.

Regarding claim 16, refer to claim 3.

Allowable Subject Matter

4. Claims 4-13 and 17-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter.

Art Unit: 2663

The prior of record fails to teach a step of selecting the packet such that the function of a given weight and a given delay measure is maximal as recited in claims 4 and 17.


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Hyun
03/22/2005


RICKY NGO
PRIMARY EXAMINER 3/25/05